## AMENDMENTS TO THE CLAIMS

Claims 1-13 (Cancelled)

14. (Currently amended) A pharmaceutical parathyroid hormone (PTH) antagonist composition, wherein the PTH antagonist composition comprises a peptide exhibiting PTH antagonist activity, together with a pharmaceutical carrier or excipient, wherein the PTH antagonist comprises a contiguous portion of human PTH having an amino acid sequence set forth in SEQ ID NO:1 ($PTH_{1-84}$), and ~~that~~ has the following characteristics:

a) the N-terminal amino acid residue of the PTH antagonist starts at any position spanning from position 8 through position 34 of SEQ ID NO:1 ($PTH_{1-84}$); and

b) the C-terminal amino acid residue of the PTH antagonist ends at position 84 of SEQ ID NO:1 ($PTH_{1-84}$).

15. (Cancelled)

16. (Previously presented) The antagonist of claim 14, wherein the PTH antagonist is selected from the group consisting of SEQ ID NO:5 ($PTH_{28-84}$) and SEQ ID NO:3 ($PTH_{34-84}$).

Claims 17-38 (Cancelled)

39. (New) A method for reducing an anabolic effect of a parathyroid hormone (PTH) on bone in a subject, comprising administering to a subject a PTH antagonist peptide in an effective, but non-toxic amount, wherein the PTH antagonist comprises a contiguous portion of human PTH having an amino acid sequence set forth in SEQ ID NO:1 ($PTH_{1-84}$), and has the following characteristics:

a) the N-terminal amino acid residue of the PTH antagonist starts at any position spanning from position 2 through position 34 of SEQ ID NO:1 ($PTH_{1-84}$); and

b) the C-terminal amino acid residue of the PTH antagonist ends at position 84 of SEQ ID NO:1 ($PTH_{1-84}$),

whereby the anabolic effect of a PTH on bone in the subject is reduced.

40. (New) The method of claim 39, wherein the N-terminal amino acid residue of the PTH antagonist starts at any position spanning from position 3 through position 28 of SEQ ID NO:1 ($PTH_{1-84}$), and the C-terminal amino acid residue of the PTH antagonist ends at position 84 of SEQ ID NO:1 ($PTH_{1-84}$).

41. (New) The method of claim 39, wherein the PTH antagonist is selected from the group consisting of SEQ ID NO:2 ($PTH_{2-84}$), SEQ ID NO:4 ($PTH_{3-84}$), $PTH_{7-84}$, SEQ ID NO:5 ($PTH_{28-84}$), and SEQ ID NO:3 ($PTH_{34-84}$).

42. (New) The method of claim 39, wherein the PTH antagonist is administered together with a pharmaceutical carrier or excipient.

43. (New) The method of claim 39, wherein the PTH antagonist administration is either in a continuous or in a pulsatile manner.

44. (New) The method of claim 39, wherein the subject is afflicted with hyperparathyroidism.

45. (New) The method of claim 39, wherein the subject is afflicted with renal osteodystrophy.

46. (New) The method of claim 39, wherein the subject is afflicted with osteoporosis.

47. (New) The method of claim 39, wherein the PTH antagonist has the further effect of decreasing the *in vivo* calcium ion concentration in the blood of the subject or countering hypercalcemia.

48. (New) The method of claim 39, wherein the PTH antagonist has the further effect of substantially eliminating the adenylate cyclase-coupled PTH receptor related activity in the subject.